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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,619	10/20/2003	Edward F. Pleva	87304.1940	2588
7590 10/14/2005			EXAMINER	
BAKER & HOSTETLER LLP Washington Square, Suite 1100 1050 Connecticut Avenue, N.W. WASHINGTON, DC 20036			ALI, MOHAMMAD M	
			ART UNIT	PAPER NUMBER
			3744	

DATE MAILED: 10/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/687,619	Applicant(s) PLEVA, EDWARD F.	
	Examiner Mohammad Ali	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8, 12 and 14-26 is/are rejected.
- 7) ☐ Claim(s) 6, 7, 9-11 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/21/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5, 8, 12, 14-19 and 21-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Lewis et al., (5,333,460). Lewi et al., disclose a cryogenic system comprising an enclosure 20 containing at one coolant compressor 16 for a housed cryogenic apparatus 10, a cabinet 12 coupled to the apparatus 10 housing; an air conditioner 10 affixed to the cabinet 12; and plurality of coolant lines including guides positioned within the cabinet 12, means foe enclosing a thermally insulated volume 12, means 50 for removing heat form the enclosing means 12. (The examiner considering the wall of heat exchanger 22 is the support of the coolant lines, the same wall acts as a pipeline divider and coolant line guide.) See Fig. 1, 2 and 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al., in view of Beasley et al., (6,684,661). Lewis et al., disclose the invention substantially as claimed as stated above. However, Lewis et al., do not disclose tubing support bracket. Beasley et al., teach the use tubing support bracket 38 in a refrigeration system for the purpose of mounting refrigerant tubings. See Fig. 2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cryogenic system of Lewis et al., in view of Beasley et al., such that tubing support bracket could be provided in order to mount the refrigerant tube.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al., in view of Linhardt (3,799,249). Lewis et al., disclose the invention substantially as claimed as stated above. However, Lewis et al., do not disclose water vapor. Linhardt teaches the use of water vapor by spraying water into the hot exhaust gas in a cryogenic system for the purpose of absorbing heat from the hot gas. See the abstract and column 3, lines 16-26. Therefore, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to modify the cryogenic system of Lewis et al., in view of Linhardt such that water vapor could be provided in order to absorb heat from the gas/air.

Allowable Subject Matter

Claims 6-7, 9-11 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 09/14/05 have been fully considered but they are not persuasive. The Applicant argued,

"Lewis provides a cold head 30 to which objects to be chilled are attached (col. 3, 11. 50-55), wherein the objects to be chilled are components of another system, housed in a cryostat and affixed to the cryocooler enclosure of Lewis (col. 4, 11. 18-32). Because the apparatus of Lewis is a cryocooler, configured within a chassis adequate to allow the cryocooler to be mounted in an enclosure, the apparatus of Lewis does not disclose an enclosure for providing a thermally regulated environment for at least one cryocooler device installed within the enclosure. Lewis instead teaches a self-contained, portable cryocooler (col. 1, 11. 53-59) to be mounted within a standard" EIA enclosure (col. 2, 11. 54-60).

Lewis does not teach or suggest providing, as a part of the cryocooler, a cabinet including an air conditioner configured to establish an environmental regime within the

cabinet compatible with operation of at least one coolant compressor/chiller over a range of outdoor environmental conditions, as recited in Applicant's claim 1 and similarly recited in independent claims 21 and 24.

To the contrary, heat from the cryocooler of Lewis is rejected to an air stream which flows in and out of the cryocooler of Lewis through a heat exchanger and grill, to a space wherein the EIA enclosure of Lewis is located (col. 4, 11. 7-13).

In contrast, Applicant's independent claim 1 is directed to a cryogenic system having a cabinet coupled to an apparatus housing with an air conditioner configured to establish an environmental regime within the cabinet compatible with operation of the at least one coolant compressor/chiller over a range of outdoor environmental conditions. There is nothing within Lewis that teaches, suggests or remotely appreciates such a feature.

In contravention to a statement in the Office Action of May 19, 2005 at page 3, paragraph 4, the cryocooler of Lewis does not contain an air conditioner. While Lewis does contain a cooling device for a cryogenic fluid output of the apparatus is heat flow at a cold head-a sealed, thermally conductive surface for removing heat from a solid object, external to the apparatus of Lewis, by conduction (col. 3, 11. 50-55)."

The Examiner does not agree. Regarding cryocooler device installed within the enclosure as stated in Para 1, The Examiner finds neither claim 1 nor claim 21 or 24 claims such item. Regarding Para 2 and 4 for cryocooler, cabinet and air conditioner configured to establish an environment regime within the cabinet, The Examiner finds (as seen in Fig.1 and 2 of US Pat. 5,333,460) 12 as the cabinet or enclosure, 30 as the

Art Unit: 3744

cryocooler and 20 as the closed loop cooling system. That means the cooling system 20 and the cryocooler 30 creates a cooling environment (creating a cooling environment is also a part of air conditioning environment which is compatible with the out door environment) within the cabinet/enclosure 12. Therefore, the amendments do not overcome the teachings of the prior art in record. Hence, the rejections are still valid.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (571) 272-4806. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

Art Unit: 3744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Mohammad M. Ali
October 7, 2005